# Central Indiana November 2019 Climate Summary

15th Coldest on Record at Indianapolis

**60**<sup>th</sup> Driest on Record at Indianapolis

## **Temperatures**

A cold and unsettled Halloween ensured a chilly start to November and in many ways, set the tone for what would be a cold month for central Indiana. Temperatures recovered from the cold finish to October during the first week of November but remained cool, with highs in the 50s and lows generally in the 30s. In the wake of a frontal passage on the 7<sup>th</sup>, temperatures tumbled to their coldest levels of the Fall so far, with many locations remaining in the 30s on the 8<sup>th</sup> with lows into the teens. After a one day warmup on the 10<sup>th</sup> that saw temperatures reach the low 60s and end up being the warmest day of the month in many locations, the bottom would drop out with the coldest airmass of the season settling over the Ohio Valley as a strong cold front passed through.

The unusually early shot of bitterly cold air would set multiple records on the 12<sup>th</sup> and 13<sup>th</sup>. Highs both days remained in the 20s across the region and on the 12<sup>th</sup>, a few spots had trouble getting out of the teens during the day. Lows fell into the single digits both days with snow on the ground and for Indianapolis, it was the earliest single digit low for the Fall on record, besting 1959 when the first single digit temperature occurred on November 17. The record low for the 12<sup>th</sup> at Indianapolis was established at 8°, obliterating the previous record low for the date of 14° in 1911. That was followed by the coldest daytime high on record for the 12<sup>th</sup> at 22°, which topped the previous record from 1920 by 4°. Indianapolis set another record low at 9° on the 13<sup>th</sup>, topping the previous record low of 10° from 1986.

Temperatures warmed through the middle of the month from the recold cold but remained below normal with highs primarily in the 40s and lows in the 20s and lower 30s. Even warmer temperatures arrived the last week of the month with a few days just

prior to Thanksgiving where highs rose to above normal levels in the mid and upper 50s. Otherwise, seasonable conditions persisted through the end of the month. Temperatures averaged roughly 4 to 6 degrees below normal for November across central Indiana.

| Site              | November 2019 | November 2019   | Highest     | Lowest         |
|-------------------|---------------|-----------------|-------------|----------------|
|                   | Avg Temp      | Difference from | Temperature | Temperature    |
|                   |               | Normal          |             |                |
| Indianapolis      | 37.7          | -5.9            | 61 on 10    | 8 on 12        |
| Lafayette         | 36.3          | -6.5            | 58 on 25    | 5 on 12 and 13 |
| Muncie            | 38.9          | -3.7            | 60 on 27    | 7 on 13        |
| Terre Haute       | 37.6          | -5.7            | 60 on 10    | 4 on 12 and 13 |
| Bloomington       | 38.3          | -5.5            | 62 on 10    | 5 on 13        |
| Shelbyville       | 38.1          | -5.6            | 63 on 10    | 4 on 13        |
| Indy – Eagle Crk. | 37.6          | -6.4            | 61 on 10    | 6 on 13        |

At Indianapolis, there were 9 days with above normal average temperatures, 20 days with below normal average temperatures and 1 day with average normal temperatures.

November 2019 was the 15<sup>th</sup> coldest in the Indianapolis area since 1871.

# **Precipitation**

Precipitation across Indiana for the month of November varied across the state, with a significant gradient from north to south. Northern portions of the state saw below normal precipitation, with amounts of 1.5 to two inches common, which was around one to two inches below normal. In central portions of the state, near normal precipitation amounts of three to four inches were seen. Across southern Indiana, four to six inches was common, with a swath of six to eight inches surrounding the Jasper area. These amounts exceeded normal from between half an inch to over two inches. After the increase in precipitation during the second half of October, these rainfall amounts along with decreasing temperatures were enough to bring drought to an end across the state.

A potent upper level low pressure early the week of Thanksgiving brought rainfall amounts of half an inch to 1.5 inches.

Another wet system arrived for the weekend after Thanksgiving as a strong and broad upper low moved through central Indiana. This brought over two inches of rain to southern portions of central Indiana, with half an inch to 1.5 inch amounts central and 0.25 to 0.5 inches north. These rainfall amounts in the southern counties prompted an areal flood advisory to be issued for expected nuisance flooding across southwestern and southern counties which is the first time in several months that any flood product was necessary. Minor flooding was briefly reached on Beaver Creek at Shoals. This

system was also the final push necessary to bring rises on the lower White and lower Wabash which would result in minor flooding arriving at the beginning of December.

| Site              | November 2019<br>Precipitation | November 2019<br>Difference from<br>Normal | Wettest Day | Longest Dry<br>Stretch |
|-------------------|--------------------------------|--|-------------|------------------------|
| Indianapolis      | 2.61                           | -1.09                                      | 0.80 on 30  | 5 days 13-17           |
| Lafayette         | 1.68                           | -1.29                                      | 0.44 on 30  | 8 days 3-10            |
| Muncie            | 1.49                           | -1.96                                      | 0.48 on 23  | 5 days 13-17           |
| Terre Haute       | 3.49                           | -0.35                                      | 1.51 on 30  | 5 days 13-17           |
| Bloomington       | 4.28                           | +0.34                                      | 1.59 on 30  | 5 days 13-17           |
| Shelbyville       | 2.75                           | -0.98                                      | 0.80 on 30  | 6 days 13-18           |
| Indy – Eagle Crk. | 2.47                           | -1.23                                      | 0.73 on 26  | 6 days 13-18           |

November 2019 was the 60<sup>th</sup> driest in the Indianapolis area since weather records began in 1871.

### Snowfall and Ice

Good surface forcing in the wake of a cold frontal passage brought a new daily record of 2.8 inches of snow to the Indianapolis International Airport on November 11th, and created another daily record for snow depth on the 12th (2 inches compared to the previous record of a trace). Across central Indiana, snowfall amounts ranged from two to over 4 inches.

### **Severe Weather**

A broken line of showers with a few thunderstorms brought gusty sub-severe winds to the region during the early morning of the 27<sup>th</sup>.

Wind gusts in the wake of the system that brought the storms were generally 45 to 65 mph across the area (higher gusts along and north of I-70), with several reports of wind damage and thousands of power outages. More information on this event can be found at <a href="https://www.weather.gov/ind/nov272019winds">https://www.weather.gov/ind/nov272019winds</a>

For information on severe weather in other areas during November, visit the Storm Prediction Center "Severe Weather Event Summaries" website at <a href="http://www.spc.noaa.gov/climo/online/">http://www.spc.noaa.gov/climo/online/</a>.

### Miscellaneous

The maximum wind gust at Indianapolis International Airport was 60 mph out of the west-southwest on the 27<sup>th</sup> as strong winds impacted central Indiana in the wake of an intense storm system. Fog or haze was reported at Indianapolis on 16 days during the month, with dense fog occurring on the 20<sup>th</sup> and 30<sup>th</sup>. Ice pellets were reported at the airport on the 11<sup>th</sup>, with thunder occurring on the 21<sup>st</sup> and the 26<sup>th</sup>.

### **December 2019 Outlook**

The official outlook for December 2019 from the Climate Prediction Center indicates greater chances for above normal temperatures. At Indianapolis, the average temperature is 31.6°. The outlook also calls for greater chances of above normal precipitation. The average precipitation for December at Indianapolis is 3.17", with 6.9" of snowfall.

Data prepared by the Indianapolis Forecast Office.